Multi-site Evaluation of LZ test ‘Eikken’ RF To Determine Serum Rheumatoid Factor
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Abstract A newly developed and commercially released test reagent, LZ test ‘Eikken’ RF, to determine serum rheumatoid factor (RF) was evaluated at the multi-site. The test reagent is principally based on latex agglutination, and is applicable to a variety of automated turbidimetric assay instruments. Through the basic evaluation including within-run and day-to-day variations, linearity versus sample dilutions, and stability of calibration, the test reagent demonstrated an acceptable performance in determining serum RF concentration. Correlation of the RF determinations from 11 different assay methods were evaluated, the results indicating high degree of compatibility among the assay methods (correlation coefficients range 0.914 to 0.990), although some assay methods were noted for significant and systemic bias throughout the determinable ranges.

With these, it can be concluded that the LZ test ‘Eikken’ RF can provide a precise quantitative assay method to determine serum RF and can demonstrate additional superiority over the existing test reagents, particularly a wider determinable range up to 500 IU/ml and a longer-term stability (for a month) of calibration after setting.

Key words: LZ test ‘Eikken’ RF, Rheumatoid factor, Multi-site evaluation, Stability of calibration, Determinable range